

NATURAL RESOURCES CONSERVATION SERVICE

Revised Blue Earth CSP Minimum Water Quality Eligibility Checklist and Certification Form

Water Quality Concerns in the Blue Earth Watershed include Fecal Coliform, Turbidity, Nutrients and Pesticides in Surface Waters and Fecal Coliform, Nitrogen and Pesticides in Groundwater

Complete this form for all fields that you wish enrolled in CSP. This form applies to Tier I status only. Higher management levels will be required to qualify for Tier III status and select enhancements. Place an "X" in the appropriate box next to each question. An X indicates "Yes" unless otherwise stated.

1. Are fields you wish to enroll protected from erosion caused by concentrated water (No noticeable channels greater than 6 inches in depth)?
 2. Have you documented <u>field specific</u> nutrient and pest management activities for the past 2 years on fields you wish to enroll? This documentation includes: crops and yields, planting and harvest dates identified pest problem, control applied, date applied and results of control pesticide brand name, EPA registration number, active ingredient and rates applied commercial fertilizer and manure applications including rates, timing, nutrient content, and method of application and incorporation quantity of manure and other organic products produced annually quantity of manure transported off-site to land not owned or controlled.
 3. Are realistic yield goals for fields you wish to enroll within the range indicated below? Provide supporting data if realistic yield goals are higher than ranges indicated. Indicate fields: In this watershed, typical realistic yield goals should be no more than 150-174 bushels per acre for corn 19-21 tons for corn silage 50 -59 bushels per acre for soybeans 6 tons per acre for alfalfa Realistic yield goals for unlisted crops should be within 120% of published yield goals found in the NRCS Electronic Field Office Technical Guide (E-FOTG), Section II; County Soils Information; http://www.nrcs.usda.gov/technical/efotg/ Or within 110% of the county average yield as found in Minnesota Agricultural Statistics (average the most current 2 years and multiply by 1.10).
http://www.nass.usda.gov/mn/ctycrop.htm
4. Do you have current soil test results for fields you wish to enroll that meet the following criteria?
 Tests are no older than 4 years for most rotations including rotations containing three or more years of row crops followed by hay/grass. See exceptions below.
 Tests for rotations containing primarily hay and pasture should be no older than the rotation length but no more than 8 years old (e.g. Corn/Oats/Alfalfa/Alfalfa/Alfalfa/Grass/Grass/Grass). Analyzed for pH, organic matter (O.M.), phosphorus (P), and notassium (K).

fertilizer applications.

Analyses must be from a Minnesota Department of Agriculture (MDA) certified soil-testing lab (See attached list). If not, submit new soil test results from a certified lab prior to December 1 or prior to fall

- 5. Do you have current **manure test results** meeting the following criteria from every manure source of 75 or more animal units? This requirement only applies to fields that have received manure applications within the last 2 years. Indicate fields that have received applications within the last 2 years on a map or photo.
 - Analyses are no older than 4 years for operations that have historical annual records demonstrating no change in analyses across multiple years. Otherwise analyses are no older than 2 years.
 - Analyses are from a MDA certified manure-testing lab (see attached list). <u>If not, submit new manure analysis results from a certified lab immediately following the next haul out</u>
- **6**. Are your fertilizer and manure application rates based on results of soil tests and the following guidance? If you grow crops or have rotations not shown you will have to consult the cited publications to answer.

Nitrogen Rates

The total amount of N applied accounts for nutrients provided by previous legume crops, past manure applications as well as all commercial fertilizer and manure applied in the crop year.

<u>Livestock operations watershed wide (manured fields) and non-livestock operations within the</u> Fairmont and Mankato Source Water Assessment Areas

 Univ. of Minn. recommendations for all crops with acceptable deviation of 20 lbs. /ac. N or 20% of computed N availability from manure.

Manure nutrient availabilities can be found at the following link: http://www.mn.nrcs.usda.gov/technical/ecs/nutrient/manure/manure.htm

Non-livestock operations (non-manured fields) outside of the Fairmont and Mankato Source Water Assessment Areas

- For all crops except corn.
 - University of Minnesota recommendations with 20 lbs. /ac. deviation

Univ.of Minn. fertilizer recommendations for field crops and vegetable crops can be found at: http://www.mn.nrcs.usda.gov/technical/ecs/nutrient/plant%20nutrient/plantnutrient.htm
An on-line calculator to determine Univ. of Minnesota recommendations can be found at: http://www.agry.purdue.edu/mmp/webcalc/fertRec.asp

- For corn use either
 - University of Minnesota recommendations (Tables 1 and 2) with 20 lb./acre deviation or
 - lowa State University Extension corn recommendations contained in Publication Pm-1714,
 Nitrogen Fertilizer Recommendations for Corn in Iowa dated May1997
 http://www.extension.iastate.edu/Publications/PM1714.pdf (Table 3)

Basic Univ. of Minn. Nitrogen recommendations Table1. Soil Organic Matter Levels Less than 3.0 %

Total pounds of nitrogen per acre for corn						
Yield Goal	Continuous Corn	Corn following Soybeans	Corn – 1 st year following Alfalfa	Corn – 2 nd year following Alfalfa		
150-174 bu./acre	190	150	90	140		
175-199 bu./acre	210	170	110	160		

Table 2. Soil Organic Matter Levels 3.0 and Greater or Southeastern Minnesota Well-Drained Soils with Silt Loam Surface Textures

Total pounds of nitrogen per acre for corn							
Yield Goal Continuous Corn Corn following Soybeans Corn – 1 st year following Alfalfa Corn – 2 nd year following Alfalfa							
150-174 bu./acre	160	120	60	110			
175-199 bu./acre	180	140	80	130			

Table3. Basic lowa State Univ. Nitrogen recommendations The following table is adapted from ISU Extension publication PM-1714, May 1997, Nitrogen Fertilizer Recommendations for Corn in Iowa. Consult PM-1714 for detail.

Rates of N usually needed if all N is applied preplant or before crop emergence				
Crop Category	Pounds of N/Acre			
Corn after Soybeans (no manure)	100-150			
Corn after Corn	150-200			
Corn-After Alfalfa Yr 1	0-30			
Corn-After Alfalfa Yr 2	0-60			

- ► Select rates within the ranges based on price outlook, fertilizer price, soil moisture conditions, on-farm testing results and stalk N tests.
- ▶ Use rates at the upper end of the ranges when conditions are favorable, lower rates when unfavorable
- ▶These ranges take into account the nitrogen credits.

Phosphorus Rates

Livestock operations watershed wide (manured fields)

- Manure applications are based on phosphorus removal on some fields with high soil test P levels (See #7 below).
- On other fields, manure applications can be based on Univ. of Minn. Nitrogen fertilizer recommendations resulting in phosphate (P₂O₅) application rates that exceed University P₂O₅ recommendations. However, commercial fertilizer phosphorus additions to these manured fields are limited to 15 lbs. per acre.

Non-livestock farms (non-manured fields)

The use of either Univ. of Minn. Extension fertilizer recommendations or Iowa State Univ. Extension recommendations continues to be highly encouraged. Iowa State University Publication PM 1688 Revised Nov. 2002- General Guide for Crop Nutrient and Limestone Recommendations in Iowa can be found at: http://www.extension.iastate.edu/Publications/PM1688.pdf

However, for purposes of this particular CSP watershed, deviations from the Universities' recommendations are allowed as follows:

Soil Test P Levels of ≤ 10 ppm Bray P1 (7 ppm Olsen)

Univ. of Minn. or Iowa State Univ. Extension fertilizer recommendations (publications noted above) with 20 lb. per acre deviation for an individual year or for each year of the crop rotation (if applied once during the rotation).

Table 4. Univ. of Minn. Phosphate recommendations

				Soil Test F	Phosphorus Level		
		Bray P1	0-5 ppm	6-10 ppm	11-15 ppm	16-20 ppm	21+ ppm
!		Olsen	0-3 ppm	4-7 ppm	8-11 ppm	12-15 ppm	16+ ppm
				Pounds of Phos	phate fertilizer per A	Acre	
Crop	Realistic Yield Goal (bu/acre)		Broadcast (Row)	Broadcast (Row)	Broadcast (Row)	Broadcast (Row)	Broadcast (Row)
Corn	150-174		100 (50)	70 (35)	40 (30)	15 (10-15)	0 (10-15)
	175-199		110 (55)	75 (40)	45 (30)	15 (10-15)	0 (10-15)
Soybeans	50 - 59		80	60	0	0	0
Alfalfa	6 tons		95	65	40	15	0

Soil Test P Levels >10 ppm Bray P1 (7 ppm Olsen)

Total P₂O₅ applied should not exceed crop removal rates for an individual year or for the crop rotation (if applied once during the rotation). **Note:** This option results in applications in considerable excess of University recommendations.

Table 5. Iowa State University Phosphate removal rates Adapted from in Iowa State Univ. Ext. publication PM 1688, Rev. Nov. 2002. Consult PM 1688 for detail.

Nutrient content of harvested crops used to calculate nutrient removal		
Crop and yield unit	Pounds p	er unit of yield
Corn	P ₂ O ₅	
Grain-Bu	0.375	
Silage-Bu grain equivalent	0.55	
Silage-Ton, 65% H₂O	3.5	
Stover-Ton	5.9	
Soybeans		
Grain-Bu	0.8	
Stover-Ton	2.8	
Alfalfa		
Hay-Ton	12.5	
Oats		
Oats+Straw-Bu	0.4	
Straw-Ton	5.0	

- 7. If you apply manure, do you meet the following criteria on fields you are enrolling?
 - Manure is or will be applied with calibrated application equipment.
 - Manure applications are based on crop phosphorus removal on fields within 300 feet of lakes and streams without field edge filter strips if those fields have soil test phosphorus values greater than 21 ppm Bray 1 (16 ppm Olsen)
 - .No manure is applied:
 - in road ditches

- within 25 feet of lakes, perennial and intermittent streams and public water wetlands
- within 50 feet of water supply wells, mines, quarries, sinkholes receiving surface runoff, or other direct conduits to groundwater
- with a traveling gun or center pivot within 300 feet of lakes, perennial and intermittent streams and public water wetlands
- No wintertime manure applications (ground is frozen, snow-covered, or actively thawing):
 - o within 300 feet of lakes, perennial and intermittent streams and public water wetlands.
 - on any field with sheet and rill soil losses (from water erosion) greater than 4 tons/acre/year (solid manure) or greater than 2 tons/acre/year (liquid manure). Soil loss estimates made with the RUSLE2 computer program will be needed to answer this question.
- Manure is injected (or incorporated within 24 hours) within 300 feet of:
 - surface tile intakes, water supply wells, mines, quarries, sinkholes receiving surface runoff, or other direct conduits to groundwater
 - lakes, perennial and intermittent streams and public water wetlands on fields that do not have a field edge filter strip
- No manure is applied during usual peak flood periods on "frequently" flooded soils
 - o floods 50-100 times in 100 years
- Fall manure applications on coarse textured soils are delayed until soil temperature is below 50° F at a 6" depth (Approximately Nov. 1 dependent on area of the state).
- On fields over shallow fractured bedrock or with high water tables, a 15 inch or greater separation is maintained between applied manure and fractured bedrock or high water table.
- A cover crop is established when manure is applied in June, July or August to fields that have been harvested or would otherwise not have active growing crops for the remainder of the growing season.
- 8. If you fall apply commercial nitrogen fertilizer, applications:
 - Are made after the soil temperature is below 50° F at a 6" depth (Approx. Nov. 1)

• Do not contain **nitrates**

on.

- Are <u>not</u> made to soils in the textural classes of **loamy sand** and **sand**. Sidedress or split-applications are used
- Are not made to soils with less than 36 inches of soil above fractured bedrock
- Are not made to soils in the textural classes of silt, silt loam or loam in southeastern Minnesota

The attached field maps identify areas having coarse-textured soil profiles down to 3 feet; flooding potential; wet soil moisture status; and depth to bedrock. These maps will help you answer some of the above questions.

the above questions.	
9. Do you store, handle, transport, mix, and dispose of all pesticides, pesticide containers, unused pesticides and rinsate in accordance with state law and safe handling procedures? This includes setbacks from sensitive areas when mixing or loading pesticides or cleaning application equipment. Setbacks vary dependent on state law but are often 150 feet.	
10. Do you implement the concepts and principles of Integrated Pest Management (IPM) into your permanagement plan? Check the IPM practice(s) used.	est
These include:	
Using disease and weed free seed used to prevent introduction of pests into fields	
Selecting plant varieties that are resistant to pests and adapted to growing seasons and hardiness in respective areas of the state	
 Regularly scouting fields to properly identify pest conditions, need for control and timing of control (frequency dependent on pest) 	
Using multiple pest control methods including effective biological, mechanical, cultural and chemical pest controls	
☐ Following all label requirements when using chemical control treatments	
Calibrating application equipment before mixing and loading pesticides at the beginning of each seas and any time nozzle type is changed.	on
11. Have you implemented mitigation practices to minimize the potential environmental impacts of products containing the following chemicals*:	
Herbicides	
 Acetochlor, Alachlor, Atrazine, Isoxaflutole, Metolachlor, Metribuzin and Pronamide 	
• Insecticides	
 Bifenthrin, Carbofuran, Chloropyrifos, Cyfluthrin, Cyhalothrin, Esfenvalerate, Fipronil, Permethri Phorate, Tefluthrin, Terbufos and Zeta-cypermethrin 	n,
Attached is a list of products that contain the above listed chemicals.	
*Mitigation practices include one or more of the following: <u>Check mitigating practice(s) used.</u>	
Using low end of label rate ranges	
Timing applications to reduce potential for movement in runoff or leaching	
Band applying, spot treating or variable rate applying where appropriate	
Using companion crops, cover crops and crops residues, when appropriate, to suppress weed growth	1
Using crop cultivation and shallow tillage operations to control annual and biennial weed seedlings	
Installing additional erosion and runoff control measures to minimize off-site movement of applied pesticides	
■ Establishing vegetated buffer areas which separate normal crop production practices from sensitive features such as sinkholes, wells, streams, lakes, waterways and tile inlets	
Additional practices listed by MDA as Best Management Practices (BMPs) for all agricultural herbicid and as BMPs specific to "common detection" pesticides	es
* If you are not using one of these mitigation practices, NRCS will evaluate your fields to determine if mitigation	
unnecessary. You will meet the eligibility criteria if the results of our evaluation show low probability of impacting	
human health (A WIN-PST rating of L or VL for Human Toxicity). Indicate the chemical and the field it was used	<u>i</u>

Submit the following:

• Proof of yield for each crop with higher yield goals than shown in question 3 (e.g. At least 3 years of crop insurance reports, elevator receipts, etc).

Complete and submit the attached Water Quality Benchmark Worksheets to help NRCS evaluate if you qualify for Tier III status and certain nutrient management enhancements.

Retain the following. This information will be requested from you if you are spot-checked:

• All records of nutrient and pesticide applications for the past 2 years.

ave reviewed and understand the C at I meet all requirements on the foll	SP Tier I minimum water quali owing fields:	ty eligibility requirements and certify
SP Applicant's Name		

CSP Pesticide List by Active Ingredient

This list is not all inclusive. Other products may also contain the active ingredients listed **Herbicides**

Acetochlor	Alachlor	Atrazine	Isoxaflutole	Metolachlor	Metribuzin	Pronamide
Certainty	Bronco	Aatrex	Balance	Bicep II	Axiom	Kerb
Channel	Bullet	Axiom	Epic	Boundary	Boundary	
Confidence	Freedom	Basis Gold		Camix	Canopy	
Degree	Intrro	Bicep II		Cinch	Domain	
Degree Xtra	Lariat	Bullet		Dual II	Sencor	
	Micro-					
Double Play	Tech	Cinch ATZ		Expert		
Field Master	Partner	Degree Xtra		Lexar		
Fortitude	Shroud	Expert		Lumax		
FulTime	Lasso	Field Master		Medal		
Harness		FulTime		Me-Too-Lachlor		
Keystone		G-Max Lite		Parallel		
Ruler		Guardsman		Pennant MAGNUM		
Shot Blast		Harness Xtra		Sequence		
Stall		Keystone		Stalwart		
Surpass		Laddok		Trizmet II		
TopNotch		Lariat				
Volley		Leadoff				
		Lexar				
		Liberty ATZ				
		Lumax				
		Marksman				
		Shotgun				
		Simazat				
		Stalwart Xtra				
		Steadfast ATZ				
		Trizmet II				

Insecticides

Bifenthrin	Esfenvalerate					
Capture	Asana					

Fipronil	Permethrin	Phorate	Tefluthrin	Terbufos	Zeta- cypermethrin
Ceasefire	Ambush	Thimet	Force	Counter	Mustang
Regent	Astro				
TopChoice	Dragnet SFR				
	Kickstart VP				
	Pounce				
	Prelude				

CSP Pesticide List

Pesticides that require mitigation practices

This list is not all inclusive. Additional pesticides contain the active ingredients listed earlier

Herbicides				
Astes	Latina			
Aatrex	Intro			
Axiom	Kerb			
Axiom AT	Keystone			
Balance Basis Cold	Laddok			
Basis Gold	Lariat			
Bicep	Leadoff			
Boundary	Lexar			
Bronco	Liberty ATZ			
Bullet	Lumax			
Camix	Marksman			
Canopy	Medal			
Certainty	Me-Too-Lachlor			
Channel	Micro-Tech			
Cinch	Parallel			
Cinch ATZ	Partner			
Confidence	Pennant MAGNUM			
Degree	Ruler			
Degree Xtra	Sencor			
Domain DF	Sequence			
Double Play	Shot Blast			
Dual II	Shotgun			
Epic	Shroud			
Expert	Simazat			
Field Master	Stall			
Fortitude	Stalwart			
Freedom	Stalwart Xtra			
FulTime	Steadfast ATZ			
G-Max Lite	Surpass			
Guardsman	TopNotch			
Harness	Trizmet II			
Harness Xtra	Volley			

Insecticides
Ambush
Asana
Astro
Aztec
Battle GC
Baythroid
Capture
Ceasefire
Counter
Cyren TC
Decathlon
Demand CS
Discus
Dragnet SFR
Dursban
Force
Furadan
Karate
Kickstart VP
Leverage
Lock-On
Lorsban
Mustang
Nufos
Pounce
Prelude
Regent
Renounce
Scimitar
Tempo
Thimet
TopChoice
Warrior
Whirlwind

Certified Soil and Manure Testing Laboratories

The following laboratories are certified for soil and/ or manure testing by the Minnesota Department of Agriculture.

BOTH MANURE AND SOIL

Iowa

Ag Source/Belmond Labs Inc. 1245 Hwy 69 N. Belmond, IA 50421

Phone: 641-444-3384 Fax: 641-444-4361

LGI Labs 1532 DeWitt St. Ellsworth, IA 50075

Contact: Mr. Mike Lindaman

Phone: 515-836-4444 Fax: 515-836-4541

Minnesota

Ag Resource Consulting 329 2nd Street Northwest PO Box 667 Albany, MN 56307-0667 Contact: Mr. Glen Borgerding Phone: (320) 845-6321

Agvise Inc.

902 13th St. North PO Box 187

Benson, MN 56215

Contact: Ms. Cindy Deppe

Phone: 320-843-4109 Fax: 320-843-2074

MTVL

326 CENTER ST New Ulm, MN 56073

Contact: Ms. Mary Ann Baumgart

Phone: 800-782-3557 Fax: 507-359-2890

International Ag Labs, INC. 800 West Lake Avenue Fairmont, MN 56031 Contact: Ms. Pat Fleming

Phone: 507-235-6909 Fax: 507-235-9155

Nebraska

Midwest Laboratories, Inc. 13611 "B" Street Omaha, NE 68144-3693 Contact: Mr. Ken Pohlman

Phone: 402-334-7770 Fax: 402-334-9121

Servi-Tech Labs 1602 Park West DR PO Box 169 Hastings, NE 68901-0169 Contact: Ms. Nancy Jenny Phone: 402-463-3522 Fax: 402-463-8132 800-468-5411

Ohio

Brookside Lab., Inc. 308 S. Main Street New Knoxville, OH 45871 Contact: Mr. Mark Flock

Phone: 419-753-2448 Fax: 419-753-2949

Spectrum Analytic 1087 Jamison Rd. Washington C.H., OH 43160 Contact: Mr. Vernon Pabst

Phone: 740-335-1562 Fax: 740-335-1104

Wisconsin

Dairyland Laboratories 217 E Main Arcadia, WI 54612

Contact: Mr. Wesley Nugteren

Phone: 608-323-2123 Fax: 608-323-2184

SOIL ONLY

Iowa

MVTL Laboratories, Inc. 35 W Lincoln Way Nevada, IA 50201 Contact: Ms. Teresa C. Sjulin

Contact. Wis. Teresa C. Sjulli

Phone: 515-382-5486 Fax: 515-382-3885

Frontier Labs, Inc. 3031 Highway 122 East Clear Lake, IA 50428 Contact: Mr. Richard Finstad

Phone: 641-357-7645 Fax: 641-357-0279

Illinois

Mowers Soil Testing Plus Inc. 117 E. Main Street Toulton, IL 61483 Contact: Mr. Steve Wiedman

Contact: Mr. Steve Wiedman Phone: 309-286-2761

1 110110. 303-200-2701

Minnesota

Soil Testing and Res. Anal. Lab

Rm. 135 Crops Res. Bldg / 1903 Hendon Ave.

Univ. of Minnesota St. Paul, MN 55108

Contact: Mr. Roger Eliason

Phone: 612-625-3101 Fax: 612-624-3420

North Dakota

Agvise Northwood ND Highway 15

PO Box 510

Northwood, ND 58267 Contact: Ms. Julie Johnson

Phone: 701-587-6010 Fax: 701-587-6013

North Dakota State University Soil Testing Lab-Waldron Hall #103 PO Box 5575

Fargo, ND 58105

Contact: Mr. Larry Swenson

Phone: 701-231-9589 Fax: 701-231-7861

Ohio

Logan Labs 184 West Main Street PO Box 1455

Russells Point, OH 43348 Contact: Ms. Susan Shaner

Phone: 937-842-6100 Fax: 937-842-2433

South Dakota

South Dakota State Univ, Soil Testing Box 2207, AGH 219

Brookings, SD 57007

Contact: Mr. Ron Gelderman

Phone: 605-688-4766 Fax: 605-688-4667

Wisconsin

Ag Source Soil and Forage Lab 106 North Cecil Street

PO Box 7

Bonduel, WI 54107

Contact: Mr. Steve Peterson

Phone: 715-758-2178 Fax: 715-758-2620

MANURE ONLY

Alabama

Auburn University Soil Testing Laboratory 118 Funchess Hall

Auburn, AL 36849 Phone: 334-844-3958 Fax: 334-844-4001

Arizona

IAS Laboratories 2515 E. University Dr. Phoenix, AZ 85034 Phone: 602-273-7248 Fax: 602-275-3836

Arkansas

Agricultural Diagnostic Services Laboratory 1366 Altheimer Drive University of Arkansas Fayetteville, AR 72704 Phone: 501-575-3908 Fax: 501-575-3896

California

DANR Analytical Lab 207 Hoagland Hall, One Shields Avenue University of California Davis, CA 95616-8627

Phone: 530-752-0147 Fax: 530-752-9892

Dellavalle Laboratory, Inc. 1910 W. McKinley

Suite 110

Fresno, CA 93728-1298 Phone: 559-233-6129 Toll Free: 800-228-9896 (CA)

Fax: 559-268-8174

Georgia

Waters Agricultural Laboratories, Inc. 257 Newton Highway

P.O. Box 382

F.O. BOX 302

Camilla, GA 31730-0382 Phone: 229-336-7216 Fax: 229-336-7967

Iowa

Iowa Testing Laboratories, Inc. 1101 North Iowa Avenue - Hwy #17 N.

P.O. Box 188

Eagle Grove, IA 50533-0188

Phone: 515-448-4741 Toll Free: 800-274-7645 Fax: 515-448-3402

Illinois

Agri-King Laboratory 18246 Waller Rd. P.O. Box 208 Fulton, IL 61252 Phone: 800-435-9560 Toll Free: 800-435-9560

Fax: 815-589-3800

Alvey Laboratory 1511 E. Main St. P.O. Box 175 Belleville, IL 62222

Phone: 618-233-0445 Fax: 618-233-7292

Indiana

A & L Great Lakes Laboratories, Inc. 3505 Conestoga Dr. Ft. Wayne, IN 46808

Phone: 260-483-4759 Fax: 260-483-5274

Kansas

Servi-Tech Laboratories, Inc. 1816 East Wyatt Earp Dr. P.O. Box 1397

Dodge City, KS 67801 Phone: 620-227-7123 Toll Free: 800-557-7509 Fax: 620-227-2047

Kentucky

Waters Agricultural Laboratories, Inc. 2101 Calhoun Road Highway 81

Owensboro, KY 42301 Phone: 270-685-4039 Fax: 270-685-3989

Maryland

University of Maryland Soil Testing Laboratory

Room 0225

H.J. Patterson Hall, NRSL College Park, MD 20742 Phone: 301-405-1352 Fax: 301-314-9049

Maine

Analytical Lab - Maine Soil Testing Service 5722 Deering Hall University of Maine Orono, ME 04469-5722

Phone: 207-581-2945 Fax: 207-581-3597

Woods End Research Laboratory 1850 Old Rome Road

P.O. Box 297

Mt. Vernon, ME 4352 Phone: 207-293-2457 Fax: 207-293-2488

Michigan

Litchfield Analytical Services 535 Marshall St. P.O. Box 457 Litchfield, MI 49252

Phone: 517-542-2915 Fax: 517-542-2014

Minnesota

Agronomic and Environmental Laboratories, Inc.

79960 550th Avenue Jackson, MN 56143 Phone: 507-847-4767 Fax: 507-847-4767

Stearns Co. DHIA Central Laboratory

825 12th St. South P.O. Box 227

Sauk Centre, MN 56378-0227

Phone: 320-352-2028 Toll Free: 800-369-2697 Fax: 320-352-6163

Nebraska

Olsen's Laboratory, Inc. 210 East First Street

P.O. Box 370

McCook, NE 69001-0370 Phone: 308-345-3670 Fax: 308-345-7880

Ward Laboratories, Inc. 4007 Cherry Ave.

P.O. Box 788

Kearney, NE 68848-0788 Phone: 308-234-2418 Toll Free: 800-887-7645 Fax: 308-234-1940

Oregon

Agri-Check, Inc. 323 Sixth Street P.O. Box 1350 Umatilla, OR 97882 Phone: 541-922-4894 Fax: 541-922-5496

Pennsylvania

Agri Analysis, Inc. 280 Newpoet Road P.O. Box 483 Leola, PA 17540 Phone: 717-656-9326

Fax: 717-656-0910

Agricultural Analytical Services Laboratory 111 Tower Rd. Pennsylvania State University University Park, PA 16802

Phone: 814-863-0841 Fax: 814-863-4540

South Dakota

South Dakota State University Analytical Services Olson Biochemistry Labs Box 2170, ASC 133 Brookings, SD 57007-1217 Phone: 605-688-6171

Toll Free:

Fax: 605-688-6295

Tennessee

A & L Analytical Laboratories, Inc. 411 North Third Street Memphis, TN 38105 Phone: 901-527-2780 Toll Free: 800-264-4522

Fax: 901-526-1031

Washington

Soiltest Farm Consultants 2925 Driggs Dr. Moses Lake, WA 98837

Phone: 509-765-1622 Fax: 509-765-0314

Wisconsin

AgSource Cooperative Services 106 North Cecil Street P.O. Box 7 Bonduel, WI 54107

Bonduel, WI 54107 Phone: 715-758-2178 Fax: 715-758-2620

Rock River Laboratory, Inc. N8741 River Rd. PO Box 169

Watertown, WI 53094-0169 Phone: 920-261-0446 Fax: 920-261-1365

University of Wisconsin Soil and Forage Analysis Lab 8396 Yellowstone Drive

Marshfield, WI 54449 Phone: 715-387-2523 Fax: 715-387-1723

Canada

Norwest Laboratories 3131 First Ave. S. Lethbridge, AB, Canada T1J 4H1

Phone: 403-329-9266 Toll Free: 800-773-3962 Fax: 403-327-8527

Soil and Feed Laboratory PEI Dept. of Agriculture & Forestry 440 University Ave., PO Box 1600 Charlottetown, PE, Canada C1A 7N3

Phone: 902-368-5671 Fax: 902-368-6299